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Canada, Railways, Canals and
" Telegraph Lines, Standing Committee, 1951
SESSION 1951
HOUSE OF COMMONS

(Government
Publications)

STANDING COMMITTEE

ON

RAILWAYS, CANALS AND TELEGRAPH LINES

Chairman—MR. L. O. BREITHAUPT

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1951
Sess. No.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 7

Bill No. 269 (Letter D-8 of the Senate);
An Act to incorporate Independent Pipe Line Company.

Bill No. 321 (Letter U-6 of the Senate);
An Act to incorporate Champion Pipe Line Corporation
Limited.

MONDAY, JUNE 11, 1951

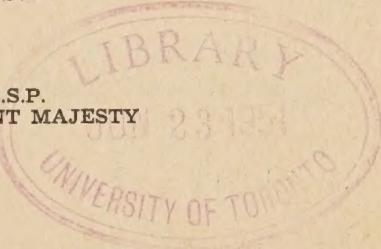
WITNESSES:

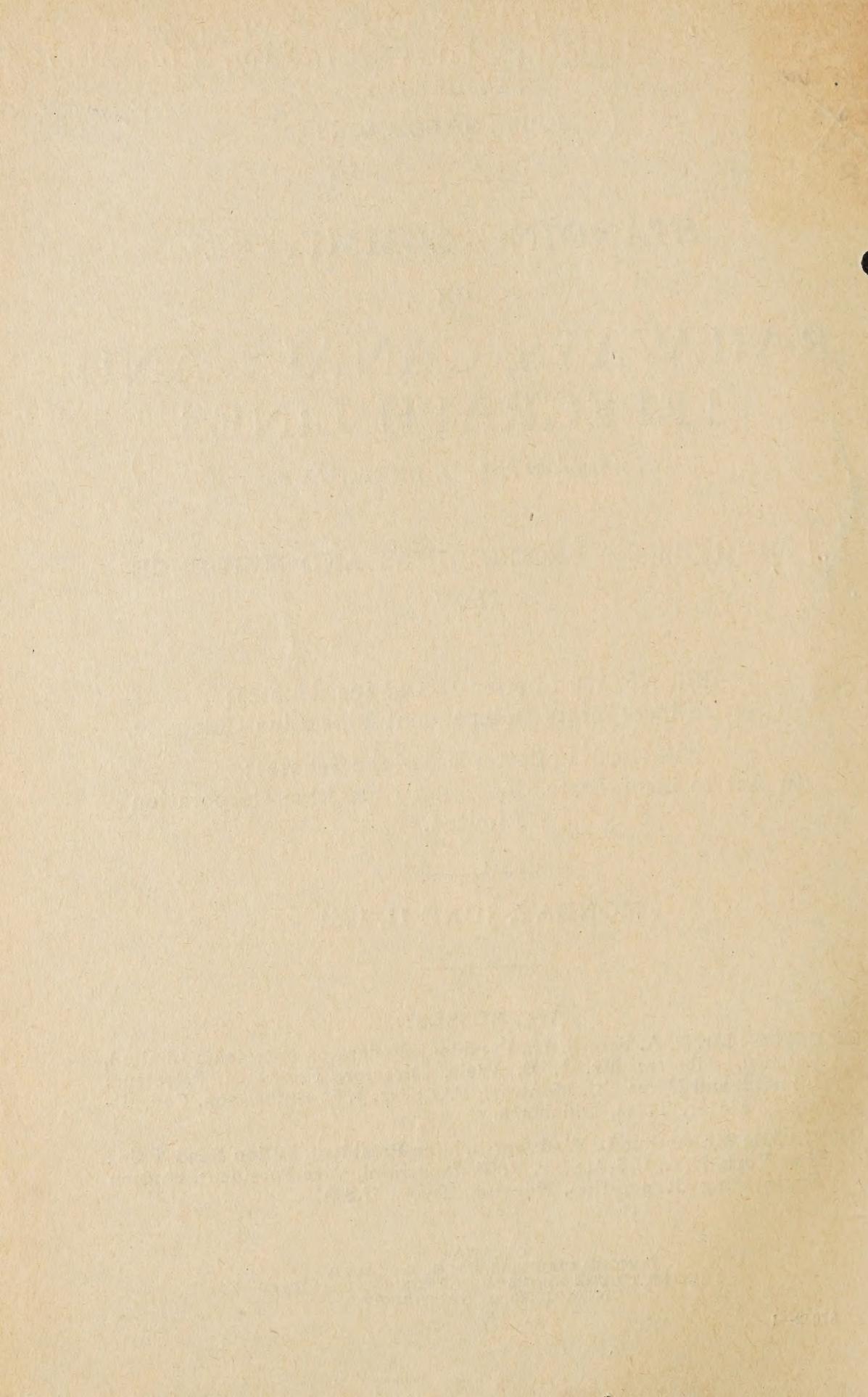
On Bill 269: Mr. R. A. Brown, Jr., President, Federated Petroleum Limited, Calgary, Alberta; Mr. J. B. Weir, Director, Federated Petroleum Limited, and Home Oil, Montreal, P.Q.; Mr. J. L. Culbertson, Consulting Engineer, Tulsa, Oklahoma.

On Bill 321: Mr. Arthur L. Wadsworth, Vice-President, Dillon Read & Co., New York, N.Y., U.S.A.; Mr. V. V. Jackomini, Vice-President, Hudson Engineering Corporation, Houston, Texas, U.S.A.

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1951

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ORDERS OF REFERENCE

TUESDAY, May 29, 1951

Ordered,—That the following Bill be referred to the said Committee:

Bill No. 269 (Letter D-8 of the Senate), intituled: "An Act to incorporate Independent Pipe Line Company".

FRIDAY, June 1, 1951.

Ordered,—That the following Bill be referred to the said Committee:

Bill No. 321 (Letter U-6 of the Senate), intituled: "An Act to incorporate Champion Pipe Line Corporation Limited".

MONDAY, June 11, 1951.

Ordered,—That the name of Mr. Weaver be substituted for that of Mr. Conacher on the said Committee.

Attest.

LEON J. RAYMOND,
Clerk of the House.

MONDAY, June 11, 1951.

The Standing Committee on Railways, Canals and Telegraph Lines begs leave to present the following as a

SIXTH REPORT

Your Committee has considered the following Bills and has agreed to report the said Bills with amendments, *viz*:—

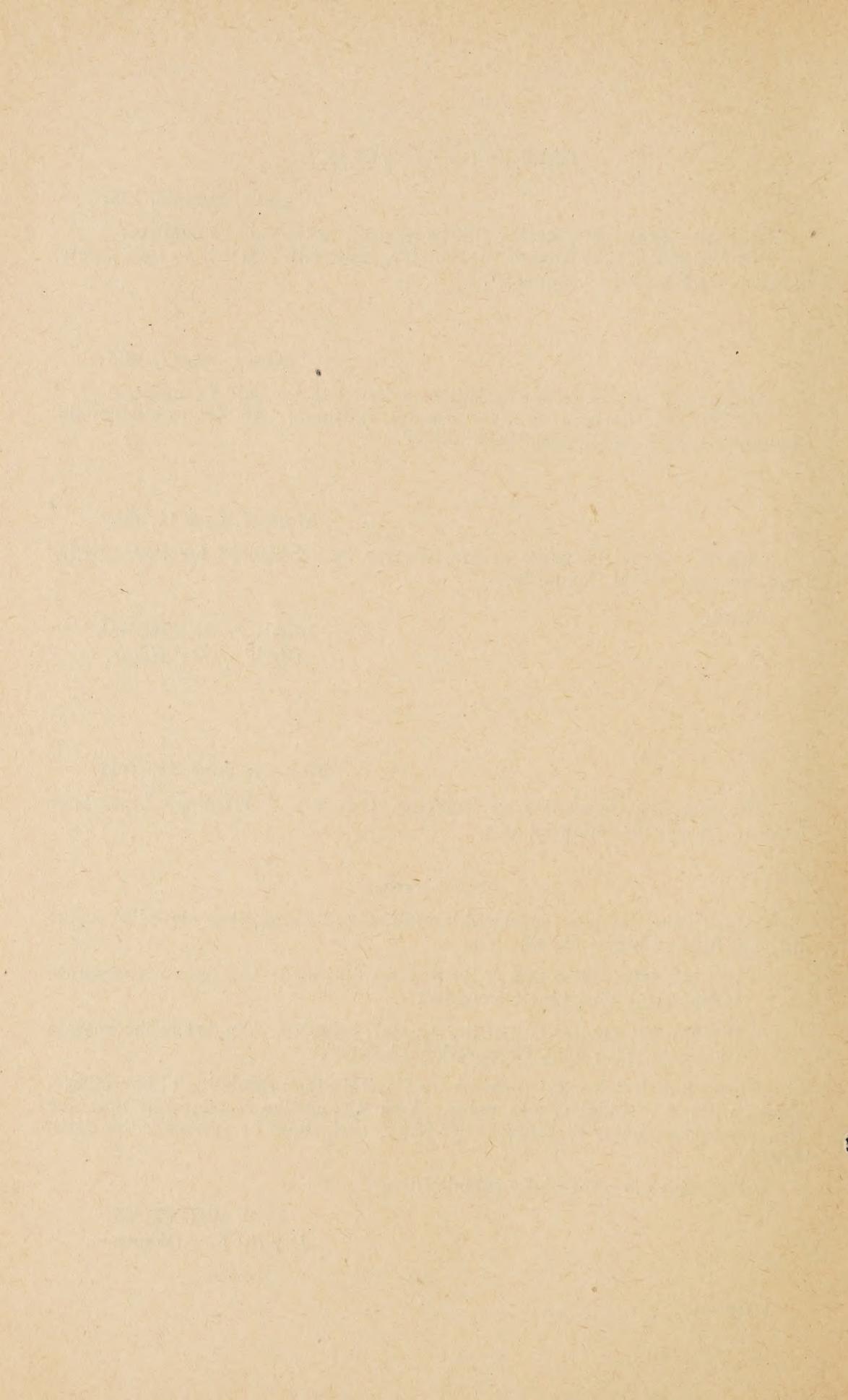
Bill No. 269 (Letter D-8 of the Senate), intituled: "An Act to incorporate Independent Pipe Line Company".

Bill No. 321 (Letter U-6 of the Senate), intituled: "An Act to incorporate Champion Pipe Line Corporation Limited".

Clause 3 of Bill No. 321 provides for Capital Stock consisting of two million shares without nominal or par value. Your Committee recommends that, for taxing purposes, under Standing Order 93(3), each share be deemed to be worth \$10.00.

All of which is respectfully submitted.

F. P. WHITMAN,
Deputy Vice-Chairman.



MINUTES OF PROCEEDINGS

MONDAY, June 11, 1951.

The Standing Committee on Railways, Canals and Telegraph Lines met at 10 o'clock a.m. Mr. Whitman, Deputy Vice-Chairman, presided.

Members present: Messrs. Applewhaite, Byrne, Browne (*St. John's West*), Darroch, Fulton, Goode, Gourd (*Chapleau*), Green, Harrison, Hatfield, Herridge, Jones, Laing, MacDougall, Macdonald (*Edmonton East*), McIvor, Mott, Murphy, Murray (*Cariboo*), Rooney, Shaw, Smith (*Queens-Shelburne*), Stuart (*Charlotte*).

In attendance: Mr. J. W. Welbourn, M.P., Sponsor of Bill No. 269; Mr. R. A. Brown, Jr., President, Federated Petroleum Limited, Calgary, Alberta; Mr. J. B. Weir, Director, Federated Petroleum Limited, and Home Oil, Montreal, P.Q.; Mr. J. L. Culbertson, Consulting Engineer, Tulsa, Oklahoma; Mr. Hugh O'Donnell, K.C., Parliamentary Agent, Montreal, P.Q. Mr. R. R. Macgillivray, Solicitor for Department of Transport, Ottawa, Ont.

Pursuant to the resolution passed at the meeting of the committee on June 7th, the Committee commenced consideration of Bill No. 269 (Letter D-8 of the Senate) intituled: "An Act to incorporate Independent Pipe Line Company".

Mr. Welbourn, M.P., Sponsor of the Bill, addressed the Committee and introduced Mr. Hugh O'Donnell, K.C., Parliamentary Agent for the Petitioners.

Mr. O'Donnell was called, explained the purposes of the Bill and was questioned.

Messrs. Brown, Culbertson and Weir were called, heard and questioned regarding the project contemplated in the Bill; its practicability from a construction and engineering point of view; potential markets in the area to be served, and the proposed methods of financing the undertaking.

The Preamble and Clauses 1 to 3 inclusive were severally considered and adopted.

On Clause 4:

Mr. Green moved:

That sub-clause (2) of Clause 4 of this Bill be amended by inserting after the word *place* in the first line thereof the words "within Canada".

After discussion, and the question having been put, the said motion was agreed to.

Clause 4 as amended, Clauses 5 to 11 inclusive and the title were severally considered and adopted.

The Bill, as amended, was adopted and the Deputy Vice-Chairman ordered to report the same to the House.

At 10.55 o'clock a.m. the Committee adjourned to attend the opening of the House and to meet again at 11.30 o'clock a.m. this day.

The Committee re-convened at 11.30 o'clock a.m. and commenced consideration of Bill No. 321. (Letter U-6 of the Senate) intituled: "An Act to incorporate Champion Pipe Line Corporation Limited". Mr. Whitman, Deputy-Vice-Chairman, presided.

Members present: Messrs. Applewhaite, Beyerstein, Byrne, Browne (*St. John's West*), Darroch, Fulton, Goode, Green, Hatfield, Healy, Herridge, Jones, Laing, MacDougall, Macdonald (*Edmonton East*), McIvor, Mott, Murphy, Smith (*Queens-Shelburne*), Thomas.

In attendance: Mr. M. E. Corlett, Parliamentary Agent, Ottawa, Ont.; Mr. Arthur L. Wadsworth, Vice President, Dillon Read & Co., New York, N.Y., U.S.A.; Mr. V. V. Jackomini, Vice President, Hudson Engineering Corporation, Houston, Texas, U.S.A.; Mr. R. R. Macgillivray, Solicitor for Department of Transport, Ottawa, Ont.

Mr. Corlett, Parliamentary Agent for the Petitioners, was called, explained the purposes of the Bill and was questioned.

Messrs. Wadsworth and Jackomini were called, heard and questioned regarding the project contemplated in the Bill; its practicability from a construction and engineering point of view; potential markets in the area to be served, and the proposed methods of financing the undertaking.

The Preamble and Clauses 1 and 2 were severally considered and adopted.

On Clause 3:

On motion of Mr. Applewhaite:—

Resolved,—That, for the purpose of levying a charge on the capital stock, which will have no par value, the Committee recommend that each share be deemed to be worth ten dollars (\$10.00).

Clause 3 was considered and adopted.

On Clause 4:

Mr. Green moved:

That sub-clause (2) of Clause 4 of this Bill be amended by inserting after the word *place* in the first line thereof the words "within Canada".

After discussion, and the question having been put, the said motion was agreed to.

Clause 4 as amended, Clauses 5 to 11 inclusive and the title were severally considered and adopted.

The Bill, as amended, was adopted and the Deputy Vice-Chairman ordered to report the same to the House.

At 1.10 o'clock p.m. the Committee adjourned to meet again 3.30 o'clock p.m. this day.

R. J. GRATRUX,
Clerk of the Committee.

EVIDENCE

HOUSE OF COMMONS

June 11, 1951

10.00 a.m.

The DEPUTY VICE-CHAIRMAN: Gentlemen, we have a quorum present so we shall go on with our meeting. The first bill to come up this morning is "An Act to incorporate Independent Pipe Line Company". The bill is sponsored by Mr. Welbourn. I now call on Mr. Welbourn.

Mr. WELBOURN: Mr. Chairman, and gentlemen, as sponsor of this bill I won't take up very much of your time. But first I would like to thank the committee for their courtesy in giving us a hearing at this time. As you know, this bill is for the incorporation of an all-Canadian company, "Independent Pipe Line Company". The company will have an all-Canadian route. The president of the company, Mr. Robert Brown, is here today. I might say that I have known Mr. Brown for quite a long time and I have known of him for even a longer time. His father brought in the Discovery well in the Turner Valley oil field, and since that time has been actively interested in the oil industry in Alberta. Mr. Brown and his associates at the present time have some 125 producing wells in the province of Alberta and they are anxious to develop further.

I am giving you this background to prove to you that this is not just a fly-by-night company, but rather a company which is in the oil business and which wants to stay in the oil business.

The parliamentary agent for the company, Mr. Hugh O'Donnell, K.C., is here. So with your permission I would like to call on him. He will be able to explain any questions that you would like to ask him.

The DEPUTY VICE-CHAIRMAN: Is it the pleasure of the committee to call the parliamentary agent? Very well. Would you step up to the table, please, Mr. O'Donnell.

Mr. Hugh O'Donnell, K.C., Montreal, Quebec, Counsel for Applicants, called:

The WITNESS: Mr. Chairman, and hon. members: This bill, as hon. members may have observed, is drafted in what I might term the standard form of such bills. We have endeavoured to incorporate in it practically all the amendments that this hon. House has suggested should be incorporated in the earlier bills.

I would draw attention particularly to clause 6 where it is set out that the main lines are to be located entirely within Canada. I think that is the amendment which this hon. committee felt should be acceptable in other bills and we incorporated it in our bill when we initiated it before the other place.

The applicants for the bill are all Canadian residents, Mr. R. A. Brown, Jr. is president and director of Federated Petroleum Limited, and he has been associated with the oil business for a considerable time.

As Mr. Welbourn has told the committee, his father brought in the Discovery Well in the Turner Valley field about 1936. His brother, Ronald Brown, the second applicant, is also a director and vice-president of Federated Petroleum Limited.

The third applicant, Mr. J. B. Weir is sole partner of the old and I think favourably known Montreal stock brokerage firm of Oswald and Drinkwater. Brigadier Weir is a director of Federated Petroleums Limited and of Home Oil Company.

Mr. Small is one of the senior members of the well known firm of chartered accountants, Riddell, Stead, Graham and Hutchison, which has offices all over the country. His firm are auditors of Federated Petroleums Limited.

These people are actively engaged in the production of oil. The business project which the applicants have particularly in mind at the present time is the construction of an oil pipe line from Edmonton, that is, a few miles west thereof, to Vancouver. The general route would run along the Canadian National line through the Yellowhead Pass down to Kamloops, B.C., and then along the highway to Merritt, B.C., and it would then follow the Canadian Pacific line along the Coldwater and Coquihalla rivers to Hope and then along Highway No. 1 to Port Mann and would cross the Fraser river there to the south side of Burrard Inlet around Port Moody. In all it would be about 721 miles in length.

As for technical advice, the applicants obtained, I think, the best possible, or as good technical advice as was available anywhere. They employed the engineering firm of Robert L. Purvin, of Dallas, Texas, and also Mr. J. L. Culbertson, consulting engineer, of Tulsa, Oklahoma, former chief engineer of the Trans-Arabian Pipe Line Company. That pipe line is in excess of 1,000 miles in length. It runs from the Persian Gulf to the Mediterranean. On my understanding, it is the biggest oil pipe line that has ever been built.

And the third consulting engineers, with whom the applicants consulted and conferred, was the firm of Williams, Connors and Stanfield, formerly known as Williams Brothers Corporation, which firm, as I understand, is rated in size as the leader in the pipe line construction business.

They have been in the business since about 1915, and generally speaking they are regarded as being about the oldest in it.

I might say that there is a very interesting article appearing in the January 1951 issue of *Fortune* magazine, which refers to these various companies.

Williams Brothers have participated in the building of the Portland to Montreal Pipe Line, the Inter-Provincial Pipe Line, the Trans-Arabian Pipe Line, and many others as well.

Those are the people who advised the applicants that the proposed route is the one which in their view is feasible, and that a pipe line could be built along that route at a reasonable cost. So, on the basis of that advice, the applicants considered that with the production available in Alberta at the present time, the proposed pipe line would be economically feasible, and that they could operate it successfully, if given a permit ultimately by the Board of Transport Commissioners, of course, to whom all these applicants must ultimately go.

The bill which we are seeking to have adopted here would be merely an empowering Act to give these applicants the right to carry on the business of transporting oil and gas and their by-products. The proposed pipe line is set up pursuant to the advice of these engineers. As to capacity, it is on a very flexible basis. Originally it is proposed to handle, roughly, 50,000 barrels in a day.

By Mr. Green:

Q. How many barrels?—A. 50,000 barrels a day, roughly. But it may be increased very easily to a capacity of 75,000 and ultimately to 110,000 barrels per day; to 75,000 for an additional cost of about \$2 million, and to 110,000 barrels per day for a cost of roughly \$11 million more.

By Mr. Murphy:

Q. What is the size of the pipe line?—A. It is to be telescopic in design. The main line runs from 22 inches down to 16 inches. There are certain feeder lines which would be smaller still. Around Edmonton it is proposed to have a feeder line from the Redwater area of roughly 14 inches; and from the Leduc field of roughly around 10 inches. In the Vancouver area there will be delivery lines to the refineries there from the main line. These will be about 8 inches in size. It telescopes from 22 inches down to 16 inches over the 721 mile route. It is estimated that the cost, including working capital, would be \$60 million.

Q. How much is that again, please?—A. \$60 million.

Q. \$60 million?—A. Yes, \$60 million. And these engineers, in collaboration with Williams Brothers, experts in the actual construction business, advised the applicants that it is economically feasible and that it can be operated and maintained with an original capital expenditure of \$60 million.

I shall not take up any further time of the committee other than to emphasize that the project is wholly Canadian, and that the people behind it are wholly Canadian, that the route is wholly Canadian, the proposed financing is to be wholly Canadian and, in short, everything about it is wholly Canadian.

Two of the applicants for this bill are present this morning. Mr. R. A. Brown, Jr., who, as Mr. Welbourn has already told the committee, is a director and president of Federated Petroleum Limited; Mr. Weir, one of the other directors; Mr. J. L. Culbertson, the consulting engineer, and Mr. Dutton, contractor, of Calgary, are also present.

Q. Is your financial man here?

Mr. McIVOR: You say it will be an all-Canadian route?

The WITNESS: Absolutely, yes, an all-Canadian route.

Our financial men here today are Mr. Brown and Mr. Weir, both of whom are directors of Federated Petroleum Limited. I think that they will be able to answer whatever questions the committee might want to ask.

Mr. MURPHY: You say your engineer is here?

The WITNESS: Yes. Mr. Culbertson is the gentleman sitting over to the right. He is the fourth man.

Mr. GREEN: Have you any map which shows the route?

The WITNESS: Yes, we have, Mr. Green.

The DEPUTY VICE-CHAIRMAN: I do not think we have enough of these maps to go around. Perhaps you could pass it around the table and if there is a description it could be read into the minutes, if you would like to do that, Mr. O'Donnell. Are there any more questions you want to ask Mr. O'Donnell?

By Mr. Browne:

Q. How do they propose raising the 60 million dollars?—A. They propose doing that through the issue of \$41 million 4 per cent 20 year bonds, \$18 million of 4½ per cent 20 year convertible debentures, and \$1 million of common stock.

By Mr. Applewhaite:

Q. I would like to ask, will this company be solely an oil carrier, or will you be in the business of buying and selling oil?—A. The companies interested in the application are actually in the oil producing business. They have available, or control, as I understand it, roughly 15 thousand barrels of oil a day, and undoubtedly it will be a common carrier: all these oil pipe line companies are.

Q. Is it your prime purpose to transport oil in which you will have an interest, or to transport for other people just making money out of transportation?—A. Well, this company's sole revenue will be derived from carrying oil,

but it must carry at the rates fixed by the Board of Transport Commissioners, and cannot favour itself against anybody else: there will be one rate.

Q. I am not trying to insinuate you should not, but you will have sponsoring parties who will provide you with a large proportion?—A. Oh, yes, and to that extent these applicants are in an advantageous position; they already control 15 thousand barrels a day.

Q. Have you, or some other witness, made a market survey?—A. Yes; I have not made it, but I have the information, and other witnesses can supplement that. In so far as I understand it, at the present time the Alberta fields have a production potential of roughly 200,000 barrels a day. The Inter Provincial Pipe Line Company, which operates eastwards, takes about 95,000 barrels a day, and the Alberta refineries themselves about 55,000, roughly; that is, 150,000 barrels.

Q. What do you estimate is the present daily market in British Columbia for oil?—A. Well, it is around 35,000 barrels a day, as I understand it.

Q. What is the minimum which you would have to transport daily in order to make this an economic proposition?—A. This pipe line, as proposed by these expert advisers who have been consulted, can be operated on as low as 34,000 barrels a day, although it is thought that 50,000 is what would be available immediately.

Q. Do your present plans envisage starting at only 35,000?—A. It can run as low as that, but it is hoped it can have available for transportation roughly 50,000.

Q. What would you do with that other 15,000?—A. That can be disposed of in the Vancouver area, or be in competition with imported crude oils from south of the border shipped in by tanker to the Vancouver area.

Q. Do you expect to build up the market from 35,000 to 50,000?—A. It is hoped that the markets, as British Columbia grows—and it is growing very quickly, as I understand it—will be able to take that. Whatever it will not use for itself will be available for competition with the crudes south of the border, and if the Alberta fields develop to where there is more than 200,000 barrels a day available, and more oil is offered for transportation westward, the rate at which it can be transported westward will be sufficiently low to put it into competition with the California crudes, and even displace some of those in the north western United States.

Q. How would you get it down there?—A. By tanker, or if there were connecting pipe lines. That is off in the future, but the applicants propose taking it to marine terminals at Vancouver.

Q. Would you go into the steamship business?—A. I do not think there is any contemplation of doing that.

Q. Would you store at the port?—A. Yes, the proposition is that there would be storage to the extent of 710,000 barrels at Vancouver.

By Mr. Goode:

Q. You have made one serious mistake on this map: you call Port Moody a terminal. It is in my riding. Never call Port Moody a terminal—A. I would not have done that, Mr. Goode, if I had made it myself.

Q. I want to develop this Port Moody idea: what do you intend to do there? You call it a terminal here, but what do you intend to do there as far as the terminal is concerned?—A. It is intended, I think, to transport the crude oil there and have it available for distribution to the refineries in that area; to bring it to tide water, if any of it were exported.

Q. Are you going to build any refineries yourself?—A. I do not think there is any contemplation of building a refinery there. It is strictly a transportation company, and it feels, with the refineries at present there, and the hope they

will be extended as is indicated, that ultimately there will be a market for whatever crude oil may be transported from the Alberta field to the Vancouver area.

Q. Is there any arrangement between this pipe line company and any oil company refining oil for distributing from Port Moody? Is there any relation between the two?—A. At the present time I do not think there is, other than informal discussions which may have taken place about arrangements which may take place in the future, or determining whether or not it is an economic proposition.

Q. According to this map, you are going through the Coquihalla Pass?—A. According to the route, yes; along the river.

Q. Do you not anticipate any trouble? You know the trouble the C.P.R. had going through there in the winter time?—A. All I can say to that is that these engineers do admit that there are a number of difficult things, but they say they are not insuperable by any means, and in their experience, Williams Bros., Mr. Culbertson, and these other persons, who have advised on it, consider this route is feasible and they can overcome these difficulties.

Q. Have you to arrange things with the municipalities about going through these towns?—A. Not as yet.

Q. Has there been any negotiation between your company and the cities in other parts of the country?—A. Other than to determine what part of the particular town they may want to go in, I do not think they have, because it is all so nebulous; if we do not get a charter it will not be necessary; but if we do we will have to do that and make arrangements with the owners of the rights-of-way.

Q. But if you do get a charter, and do not get permission to go through the towns?—A. Well, we are there in the hands of the Board of Transport Commissioners.

By Mr. Shaw:

Q. Is it assumed the company will undertake construction almost immediately after authorization?—A. I would say it is. We are in the same position as a number of these other pipe line companies, as I think this committee all too well knows, and they all must go to the Board of Transport Commissioners and they will decide which one of these companies has the best proposal in the interest of the shippers and consumers and everybody; and we hope that our proposal is the best.

Q. If you are authorized to proceed, are you prepared to proceed immediately?—A. Oh, yes, that is the intention. We are bona fide in the business of oil and transporting it.

Q. What is the estimated time required to construct this pipe line?—A. I would think by the end of next summer.

Q. Do you mean by the end of this summer?

The DEPUTY VICE-CHAIRMAN: Maybe we should wait until we hear an engineer on that.

The WITNESS: I am informed by Mr. Dutton that if there is not too much delay, it will be next summer.

By Mr. Laing:

Q. I would like to develop some concept of the economics of this: I do not know whether or not you are in a position to indicate the cost of transport to Vancouver?—A. Yes, that again was all gone into. That will fully depend on the volume: from roughly 29.9 cents to 65.4 cents depending on the volume available. If we get 110,000 barrels a day we can operate as low as 29.9.

Q. Have you any idea of the present cost to Sarnia?—A. Off hand, no, but we would not be competing with Sarnia, because Sarnia gets the eastern movement; that is the 95,000 barrels a day I mentioned.

Q. Is not the cost 83 cents, or something in the nature of that?—A. I cannot give you that.

Mr. BROWNE: But that is much further.

Mr. LAING: I know it is, but the point I am trying to develop is that this type of pipe line—and I hope the committee looks upon it with great favour—is going to develop new industries in British Columbia, and at the same time return to Alberta a much higher return for that portion of the oil which can be economically shipped that way. At the present time Sarnia is not taking capacity of allowables and there is a surplus in Alberta, and it would seem to me to be a very important economy in our country, to take oil westward, and I am delighted this bill calls for terminal facilities at Vancouver. In the Pacific north west at the moment there are no refining facilities at either Seattle or Port Moody, but there is no reason why we could not do that.

The WITNESS: Thank you.

By Mr. Jones:

Q. Are you contemplating building a pipe line to Seattle and Tacoma?—A. That is not in the present contemplation. We take it to tide water at Vancouver, and there we hope the Vancouver refineries can take a considerable proportion. Any excess would be available for competition with the north western United States oil in Seattle or Washington.

Q. Would a branch line to those towns lower the cost for British Columbia consumers?—A. I suppose it would to this extent: that the greater the volume that is transported on that pipe line, the lower the cost of transportation, and the lower the Vancouver payment for crude oil.

Q. Is it conceivable you could put out a branch line to lower the cost?—A. That would be a result. At the present time we are merely trying to get to Vancouver. If we get there, we think our crude oil will compete with other oil south of the border, and we think at that point, whoever is interested in buying oil will take care of that aspect of it. We are merely in the transportation end of it.

Mr. GREEN: Is Mr. O'Donnell calling these other men?

The DEPUTY VICE-CHAIRMAN: We will call them if you want them.

The WITNESS: I was trying to save time, but I can call them.

The DEPUTY VICE-CHAIRMAN: We have the two applicants here; Mr. Brown and Mr. Weir. Is it the pleasure of the committee to call them?

Mr. GREEN: Yes please.

The DEPUTY VICE-CHAIRMAN: Which one do you want?

Mr. GREEN: Mr. Brown.

R. A. Brown, Jr., Calgary, Alberta, president Federated Petroleum Limited, called:

The DEPUTY VICE-CHAIRMAN: Have you anything you would like to say, Mr. Brown, or would you prefer just to answer questions?

The WITNESS: Just to answer questions.

By Mr. Green:

Q. Mr. Brown, what experience have you had in the oil business?—A. I have been in the oil business for 16 years, sir, primarily in the drilling, production and exploration.

Q. In Alberta?—A. Yes, sir.

Q. You and your father were two of the pioneers in the oil business in Alberta?—A. My father was and laterally I joined him.

Q. What is the position with regard to the amount of oil available for shipment out to the Pacific coast?—A. At the present time there is approximately 50,000 barrels per day available to go to Vancouver.

Q. That is the maximum that is available at the present time?—A. Yes, sir.

Q. Fifty thousand barrels a day?—A. Yes, sir. That is arrived at—the government of Alberta give the industry an allowable production, and presently there is 150,000 barrels a day being produced and taken by Inter Provincial and consumed in Alberta. The balance would be available if facilities existed.

Q. What is the total allowable production in Alberta?—A. About 200,000 or 205,000.

Q. About 200,000?—A. Yes.

Q. How much goes east through Inter Provincial pipe lines?—A. At the present time 95,000.

Q. How much is used in Alberta?—A. Approximately 50,000 or 55,000; it varies each month.

Q. So that all that would be available for piping to British Columbia would be about 50,000 barrels a day?—A. Yes, sir.

Q. In your opinion is there likelihood of more than one pipe line being needed for piping oil to the west coast from Alberta?—A. It would depend entirely on the amount of production obtained in Alberta.

Q. Well, under present conditions would there by any justification for more than one pipe line?

Mr. GOODE: I do not think that is a fair question.

Mr. GREEN: Here is an expert oil man, one of the best in Canada, and I do not know why I should not be allowed to ask that.

Mr. GOODE: Your own conscience should tell you.

The DEPUTY VICE-CHAIRMAN: The idea of this committee is to obtain information. Go ahead, Mr. Green.

The WITNESS: At the present time it is very doubtful whether two pipe lines could exist economically if only 50,000 barrels a day was available and shared equally. We need a minimum of 34,000 barrels a day to reach a break even point which provides interest on the money invested and operating costs.

By Mr. Green:

Q. So that under the present conditions, practically all of the oil available for piping to the west coast would be required in British Columbia; is that correct?—A. Yes, sir.

Q. Your plan is considerably different from other plans that have been submitted, in that the cost is a great deal lower, and the plan does not visualize the transporting of such large quantities of oil.—A. We have provided some flexibility. We can bring our pipe line from a 50,000 barrel capacity to 75,000 by building one pump station and adding one or two pumps at existing stations. We can increase the capacity up to 110,000 or 125,000 barrels a day by adding three additional pump stations. The pipe line can be extended beyond that by looping a line, and that will depend entirely on available production in Alberta, and available market on the west coast. Our line was designed to fit existing conditions as we see them.

Q. Your line is meant to fit conditions as they are at the present time?—A. At the present time, and at the same time for some flexibility if more production is found in Alberta.

Q. Do you visualize any refineries on your line between Edmonton and Vancouver?—A. I personally do not. I know of none that are contemplated.

Q. Your plan is that any oil available to be exported from Canada would be shipped by tanker from Vancouver?—A. There are three ways it may be shipped: by barge, by tanker or by pipe line out of the Vancouver area into the Seattle area, if that is the destination, but that is something that would be decided at the time the market in that area became available.

Q. Generally speaking, your belief is that the main job now is to get the pipe line to the Pacific coast at Vancouver which will be something in line with present conditions?—A. Yes, sir.

Mr. GREEN: I am very favourable to this application, Mr. Chairman.

By Mr. Laing:

Q. One question: in your reply to Mr. Green concerning present allowables, I think probably you would be leaving an air of pessimism in the minds of the committee. That is at present?—A. Yes.

Q. Is not it a fact that there are accretions to reserves annually of 200,000,000 barrels?—A. Yes.

Q. And we can expect further accretions?—A. Quite so, but I would not care to put a figure on what new fields will be found.

Q. New wells are coming in all the time?—A. Yes.

By Mr. Murphy:

Q. Mr. Brown, there is one point I want cleared up: you mentioned the pipe line going to Sarnia with a capacity of 95,000?

The DEPUTY VICE-CHAIRMAN: Not capacity: that is what they carry.

The WITNESS: At the present moment, that is what I understand.

By Mr. Murphy:

Q. Would you be able to get enough oil if the Inter Provincial carried its full capacity?—A. My understanding is that Inter Provincial is presently carrying its full capacity.

Q. What do you mean by "presently"?—A. 95,000: Inter Provincial has the same characteristics as our proposed line, in that it can be expanded from 95,000 to 135,000 and up to 200,000 ultimately.

Q. That is what seems rather vague to me: with the present output in Alberta being somewhat, shall I say, limited, I was wondering how you are going to fix this picture properly if the Inter Provincial would step up its capacity to, say, 150,000 or 200,000? How is that going to affect your company?—A. We are in the process of making arrangements to sell oil as opposed to other companies on the west coast, and I think we might have an economic advantage.

Q. Yes, I can appreciate that. The financing of this project, is that going to be Canadian?—A. Yes, sir.

Q. As far as you know?—A. As far as I know, sir. Mr. Weir, who is one of my directors, and is present, is in the financial business and he has had discussions with many people in finance relative to this whole project, and we are satisfied money can be found in Canada to the extent of 60 million dollars to complete the pipe line.

Q. And that is going to be raised by selling so much common stock?—A. It will be raised by selling \$41 million of 20 year first mortgage bonds, \$18 million of $4\frac{1}{2}$ per cent 20 year convertible bonds, and \$1 million of common shares. That is the tentative proposal.

Q. What are these common shares going to sell at?—A. Tentatively, sir, the intention was they would be sold at \$1 but a great deal will depend on the conversion feature of the $4\frac{1}{2}$ per cent, which is something that will have to be worked out at the time.

Q. I assume, naturally, that you know what the price of oil coming into the Vancouver area from the south is?—A. Yes, sir.

Q. And you feel that you can compete?—A. We can operate our line and pay the same price which is now being paid for Redwater crude. If we can put 34,000 barrels a day through our line, we can pay the same price in Vancouver in competition to the crudes now being used in that quarter.

Mr. ROONEY: Mr. Chairman, this company from what I see, is offering us everything we ask; why not put it to a vote and get this thing through?

The DEPUTY VICE-CHAIRMAN: Any more questions?

By Mr. MacDonald:

Q. Mr. Chairman, I have just one question going on further from what Mr. Murphy asked about these accretions; would the witness say in his opinion that in the very near future there will be sufficient oil produced in the Redwater and Leduc fields to take care of the requirements of Canada to the capacity of Inter Provincial pipe line and your proposed pipe line?—A. I prefer not to express an opinion on that, sir.

The DEPUTY VICE-CHAIRMAN: That is a rather difficult question. That concerns future production, does it not?

The WITNESS: I do not think that the existing reserves are adequate to take care of Canada—I say that as a direct answer to your question. I think all of us in the west, as evidenced by the fact there is \$150 million or \$200 million a year spent on exploration, respect the future possibilities of Alberta. There is no doubt in my mind at all that new oil fields will be found.

Mr. BROWNE: Did you say the supply of oil was or was not sufficient to take care of all Canada?

The WITNESS: In my opinion it is not adequate.

The DEPUTY VICE-CHAIRMAN: Shall we consider the bill?

Mr. GREEN: I would like to hear the engineer.

Mr. MURPHY: I have one question before you go, Mr. Brown. As an oil producer can you tell this committee whether we ship any oil south of the border?

The WITNESS: Not that I know of.

Mr. MURPHY: Has any attempt been made to ship oil south of the border?

The WITNESS: No serious attempt.

Mr. MURPHY: The campaign is on, of course.

The WITNESS: Yes, sir.

Mr. J. L. Culbertson, Tulsa, Oklahoma, Consulting Engineer, called:

The DEPUTY VICE-CHAIRMAN: Would you like to make a statement or would you prefer to answer questions?

The WITNESS: I would prefer to answer any questions.

Some Hon. MEMBERS: Carried.

Mr. GREEN: Several people here say "carried" but, while we are all in favour of this bill, we have expert witnesses here whose evidence may be of the utmost value in regard to other bills in future. I want to find out what we can while they are here, and if you will be patient it will help us in the long run.

Mr. HERRIDGE: You have Mr. Goode's permission.

Mr. GOODE: No caustic remarks.

Mr. SHAW: May I suggest that even though we are in agreement with the bill we would at least like to hear what is going on and I think there are several factors contributing to the fact that we cannot hear.

The DEPUTY VICE-CHAIRMAN: Proceed, Mr. Green.

By Mr. Green:

Q. Mr. Culbertson, can you outline to the committee your experience as an oil engineer or pipe line engineer?—A. Yes, sir, I have been connected with the transport side of the oil business for thirty-six consecutive years and have functioned as a consulting engineer for one of the largest systems in the world.

Q. Can you tell us some of the developments on which you have been retained as a consulting engineer?—A. The last project was the Trans-Arabian pipe line in the middle east, and which is one of the largest pipe lines ever conceived. It is built with thirty and thirty-one inch pipe to handle some 315,000 barrels daily. Prior to that I initiated the engineering work on the Big Inch.

Q. Where?—A. The Big Inch—the twenty-four inch war emergency line from Texas to New York. I built the Texas Empire System from Oklahoma to Chicago; the Texas-New Mexico pipe line system from Texas out into the west. I built the system from Port Arthur along the gulf coast into the New Orleans area, and many others.

Q. Your firm has been responsible for the engineering investigations with regard to this proposed oil pipe line to the Pacific coast from the Edmonton district?—A. I, personally, with the firm of Robert L. Purvin—there were two engineering consultant companies on the job.

Q. What is your opinion concerning the feasibility of the plan proposed by the applicant for this charter?—A. There is no doubt regarding the feasibility of it. It is quite feasible and practical.

Q. And what about the figures they have given us as to cost?—A. I think they are reasonably accurate.

Q. You have heard Mr. Brown's evidence about being able to lay down oil in Vancouver by this pipe line to compete with crude shipped in from California and other points to the south. Do you agree with that?—A. I think it is absolutely correct.

Q. You think that the whole proposal is economically sound?—A. Quite, yes sir.

Q. And you have also heard the evidence with regard to the available crude in Alberta, do you know anything about that?—A. I am not qualified in that respect, however I do know that the concensus of opinion of the geologists who are qualified is to that effect.

Q. To the effect of the evidence given earlier this morning?—A. Yes, sir, that is correct.

Q. By the way, do you think that the situation would justify more than one oil pipe line to the Pacific coast?—A. No, sir; definitely not.

By Mr. Browne:

Q. Who surveyed this route? Did you go over the route yourself?—A. Myself, and the firm of Williams Brothers.

Q. You are familiar with the route yourself?—A. Yes, sir.

The DEPUTY VICE-CHAIRMAN: Shall we take up the bill?

Mr. MURPHY: Would you call the finance man for a moment.

Mr. J. B. Weir, Montreal, Quebec, Director, Federated Petroleums Limited and Home Oil, called:

By Mr. Murphy:

Q. So that it will appear on the record, you are the financial man responsible for any information desired by the committee?—A. Yes, sir.

Q. As such you have gone into the details respecting production and transportation?—A. Mr. Brown and I have gone into the figures at the same time. I am a director of Federated Petroleums Limited as well.

Q. Is it your opinion then that the proposed figure is correct—the figure for the construction of the pipe line?—A. Well, sir, I can only take the figures the engineers have given me and I have every confidence that their work is correct.

Q. As the finance man, from your calculations of production and transportation you consider the project will be financially sound?—A. Yes, sir.

By Mr. Applewhaite:

Q. Your capital stock will consist of two million shares without nominal or par value. How do you anticipate?—A. The proposal is for one million shares.

Q. Your bill says two million, does it not? No, I am sorry, I have the wrong bill?—A. The proposal, sir, is that we raise \$41 million in first mortgage bonds, and \$18 million in convertible debentures.

Q. As a matter of fact Independent Pipe Line Bill says "five million shares?"—A. That is the authorized capital, sir.

Q. What do you propose to raise besides that? How do you propose to raise the balance of your cost of construction?—A. Well, it is given. The actual cost will be something less than the \$60 million, leaving about \$2 million for working capital—the rest to cover the cost of construction.

Q. In what form of financing do you propose to raise that additional \$60 million, approximately?—A. \$41 million by the sale of first mortgage bonds, which will be principally insurance money and other money available in the bond market.

Q. \$41 million of first mortgage bonds?—A. Yes, and \$18 million of convertible debentures. What the conversion of the debentures would be is dependent on what the market is at that time.

Q. Have you a financial house to handle it?—A. I would handle it but I would have to get a group to underwrite with me.

Q. Are they committed as yet?—A. No, sir.

The DEPUTY VICE-CHAIRMAN: Shall we go on with the bill?

Agreed.

Shall the preamble carry?

Carried.

Clause 1?

Carried.

Clause 2?

Carried.

Clause 3?

Carried.

Clause 4?

Mr. GREEN: In clause 4 we have the same difficulty that we had in one of the other bills. There is provision here for changing the place of the head office and we asked in a previous bill that the words "within Canada" be inserted there. There is no such restriction here.

The DEPUTY VICE-CHAIRMAN: Do you wish that amendment?

Mr. O'DONNELL: We have no objection whatsoever to that. This is strictly a Canadian company and we followed the form of bills previously adopted. I know that there is one bill that has the words "within Canada".

Mr. GREEN: You could add that at the end of clause 2.

The DEPUTY VICE-CHAIRMAN: In the first line of clause 2: "The company may, by by-law, change the place—'within Canada'—where the head office, etc". Will you make that motion, Mr. Green?

Mr. GREEN: Yes.

The DEPUTY VICE-CHAIRMAN: It is moved by Mr. Green that the words "within Canada" appear at the end of line number 25.

Is it the pleasure of the committee to adopt clause 4 as amended?

Agreed.

Shall clause 5 carry?

Carried.

Clause 6?

Carried.

Clause 7?

Carried.

Clause 8?

Carried.

Clause 9?

Carried.

Clause 10?

Carried.

Clause 11?

Carried.

Shall the title carry?

Carried.

Shall I report the bill as amended?

Carried.

The DEPUTY VICE-CHAIRMAN: As it is now five minutes to eleven we will adjourn the committee and reconvene here at 11.30 this morning.

The Committee resumed at 11.30 o'clock a.m.

The DEPUTY VICE-CHAIRMAN: Order, gentlemen, the next bill that we are going to consider in this committee is Bill No. U6 of the Senate, No. 321. The parliamentary agent is Mr. Corlett. Mr. Corlett, will you explain the bill?

Mr. M. E. Corlett, Barrister of the City of Ottawa, called:

The WITNESS: Mr. Chairman, honourable members: this is another pipe line petition. From perusing the terms of the bill you will note that it follows the standard or model form that I believe was prepared by an interdepartmental committee of lawyers, employed by the government of Canada. Also you will note, in section 5, that this company, if the charter is granted to it, will operate subject to the general legislation on the matter of pipe lines, namely, the Pipe Lines Act. Now, I would like to refer the honourable members to the petitioners because we submit that they are a representative and responsible group of Canadian citizens.

Mr. Lloyd Rogers Champion of the city of Montreal is chairman of the Prudential Trust Company which has its head office in Montreal and which operates from Montreal to the Pacific coast; Colonel Leslie Mendelsohn Cuthbert

St. Bendick Collins, of the city of Toronto, is the president of the Prudential Trust Company; and Mr. Daniel Roland Michener, K.C., is a prominent barrister in the city of Toronto; Mr. Hurter, is an eminent Canadian consulting engineer and presently owns the firm of Stadler, Hurter and Company, Montreal; and the last petitioner, Mr. Joseph Theophile Wilfrid Gagnon, is one of the prominent industrialists residing in the province of Quebec. So that on that point we submit that this is a representative and responsible group of Canadians.

We have distributed a map which indicates the proposed route of this pipe line which, as you will see, is to be a gas pipe line originating in southern Alberta, and following an all-Canadian route to Vancouver on the Pacific coast. We have already met the wishes of this honourable body by having inserted when this bill was before the Senate, in clause 6(a), the all-Canadian provision, namely that the main pipe line or lines for the transmission and transportation of gas and oil shall be located entirely within Canada. Now, I might say, gentlemen, that the preliminary survey of this route was made by Mr. Hurter. Unfortunately, Mr. Hunter is unable to be here today. He had made a preliminary survey and I think, as honourable members will remember, this route will more or less follow one that was approved by this committee when the Alberta Natural Gas Bill was before this House in the spring session of 1950. This was their all-Canadian route other than the Yellowhead pass route.

We have with us today the representative of the financial backers who are Dillon, Read and Company of New York city. Mr. Wadsworth, who is the vice president of that company, is here and will be glad to give testimony to this committee and answer whatever questions honourable members might wish to ask of him. This group has already retained an outstanding American engineering firm, the Hudson Engineering Corporation of Houston, Texas. This company, unlike many companies, is more than just a construction firm. I mean, in addition to constructing pipe lines they design them and service them and generally are known as specialists in the gas industry in the United States. Their vice president, Mr. V. V. Jacomini, is here and he will be glad to give evidence. Now, the only other point that I would like to mention at this point is on this question of steel, because I have noticed that honourable members have asked questions about that in connection with other bills. Now, we take the position, gentlemen, that since steel is subject to governmental control both in the United States and in this country that in the final analysis—assuming that a charter is granted to this group, and all the other hurdles are successfully completed—the steel control in either this country or the United States will have a big say as to whether steel will be allocated. I understand that the gas pipe line industry in the United States is known as a defence supporting industry under the Controlled Material Plan that is being worked out there and which may be adopted in some form in this country. However, I would like to say and I am authorized to say that this group who are taking their responsibility seriously have received an assurance from the Schneider Company of France, which honourable members know to be the largest steel producing company in Europe, that they are interested and will lend every assistance to see that steel is supplied to this particular company if this charter is granted.

Without further ado I would say that I leave in your hands whether to call Mr. Jacomini or Mr. Wadsworth to give testimony.

The DEPUTY VICE-CHAIRMAN: Are there any further questions to ask of this witness?

By Mr. Fulton: -

Q. I would like to ask the witness, Mr. Chairman, whether he is in a position to tell us about the available supplies of gas in the area which you have indicated on your map as being the starting point of the pipe line, the Pincher Creek area.—A. The answer to that, Mr. Fulton, is that at this stage

you will appreciate we cannot say precisely where the line will start. Most likely, if it is going through the Crowsnest Pass it will have to start somewhere in the southern part of Alberta, in the Pincher Creek area. At the moment this proposed company does not operate a gas gathering or grid system. On that point I would say that since the Pipe Lines Act says we must come to parliament in order to obtain a charter, we feel that we do not want to get involved too much until we know whether we are going to get a charter, and it was for that reason that I stressed what we thought was a bona fide and responsible group of Canadians. We have strong financial backing. Mr. Wadsworth, of Dillon, Read and Company, can tell you what Dillon; Read do in the pipe line business in the United States; and we have strong engineering backing. At the moment, no commitments have been made with reference to any gas gathering system in Alberta.

Q. The map which you gave us simply indicates the point of origin at Pincher Creek with two spurs, one running to Spokane and the other to Seattle, so I presume what the company may be contemplating with respect to gathering gas in Alberta and from what you told me, at the moment there is nothing definite at all. I understand from your answer that you have not made any commitments or any definite arrangements with respect to the gathering of gas, is that correct?—A. That is right, sir.

Q. Could you elaborate a little bit on your answer to tell me whether or not the company presently contemplates eventually bringing gas from as far afield as the Edmonton area or whether it is intended to confine its activities to the gas fields in the southern portion of Alberta?—A. Mr. Fulton, we feel at this stage, in view of the attitude of the Alberta government, that we just cannot say specifically where the line will originate. It seems to me I have heard evidence that the Alberta government is of the opinion the large gas reserves will be in the northern part of the province. If that is so, assuming we get the charter, we would take active steps to make arrangements with gas gathering systems in Alberta or it might mean we would have to extend the line further north.

Q. In other words, although we have this map showing that you are going to start apparently in the south we must not take it, then, you are confining yourself simply by the map you have presented to us. In other words we are not to take it you are going to confine your activities to the southern part of the province.—A. No; I am sorry if this map has misled the committee.

Q. No, I do not mean that; I just want this point to be clear.—A. You are quite right, Mr. Fulton.

Q. Although you have shown a route starting at the southern portion of Alberta and extending across practically the south border of British Columbia, yet if the gas situation in Alberta develops in the way you just indicated, that the large exportable reserves of gas are around Edmonton, you might contemplate changing your route.—A. Well, if this group gets to the Board of Transport Commissioners and the board ordered the line to go through the Yellowhead Pass that would certainly have to be done by us, but at the moment the preliminary surveys have been surveys of the route indicated on the map.

Q. And it is the intention of your company to apply for authority to build over the route shown on the map?—A. It is the present intention to do that.

By Mr. Applewhaite:

Q. Following the line of Mr. Fulton's questioning. I want to ask a question in connection with the available gas. Would this witness like me to ask him or have you somebody else who will come later?—A. Mr. Applewhaite, I am not a technician. I only happen to be a barrister at law; perhaps Mr. V. V. Jacomini, who is the engineer, can answer that.

Q. You have an engineer here?—A. Oh, yes.

By Mr. Murphy:

Q. I wonder if the witness would tell the committee, or who would answer questions with respect to, we will say, taking by-products out of your gas before it is shipped.—A. Mr. Jacomini would be in a position to answer that because, as I mentioned earlier, his firm are familiar with the ins and outs of that phase of the project.

Q. Have you an officer of the company here?—A. No, we have not, sir.

Q. You have Mr. Jacomini and your financial backer?—A. Yes, Mr. Wadsworth is the representative of the financial backers of this company, and Mr. Jacomini is vice president of the engineering company that has been retained.

Q. I wonder if you could find out who would be in a position to give evidence with respect to the by-products coming off the gas before it is shipped.—A. I think, Mr. Murphy, in view of what Mr. Jacomini told me last night, he would be able to give you that information.

Q. Yours is just a pipe line, it is not a common carrier, is that the idea?—A. Being a gas pipe line I do not think under the Pipe Lines Act it could be a common carrier. We would just be transmitting gas.

Q. You have not any fields, I mean?—A. No, not at the moment. In answering that I think Mr. Jacomini will be able to answer the questions you have raised and if not we will most certainly see you get the information you want.

By Mr. Green:

Q. Is this group applying for a charter affiliated with any company which is producing gas or owns gas?—A. No, Mr. Green.

Q. You have no affiliations whatever?—A. No. Well, now, I want to say this there are no active affiliations but I must say this, since you have raised the question, that Mr. Champion happens to be president of Oil Sands, Limited. Their interest has been in the tar sands fields in northern Alberta. I think he is also president of a company called Wainwright Refineries Limited. Those are oil companies, certainly nothing to do with gas.

By Mr. Murphy:

Q. Do you purpose selling your product to public utilities—how do you intend disposing of it?—A. I think that is the intention but Mr. Jacomini could give that information to you more adequately than I could.

Mr. GOODE: This is not significant, but there is not a westerner on this board of directors at the moment?

The WITNESS: No, sir.

The DEPUTY VICE-CHAIRMAN: Is it the intention of the committee to call Mr. Wadsworth, the vice-president of Dillon, Read and Company?

Mr. MURPHY: Would you call the engineer first, Mr. Chairman?

The DEPUTY VICE-CHAIRMAN: Mr. Jacomini.

Mr. V. V. Jacomini, Vice-President, Hudson Engineering Corporation, Houston, Texas, called:

Mr. BYRNE: The other pipe line companies that have applied here have in many cases overlooked the East Kootenay and in some cases the West Kootenay area. Have you any figures which would show approximately the consumption of gas in the east and west Kootenay? That is, we have Kimberley, which is presumably a large consuming area, and Trail. Could you give me figures as to the amount of consumption in those areas?

The DEPUTY VICE-CHAIRMAN: I wonder if that is relevant to this bill? This is a bill to build a pipe line from Pincher Creek to Vancouver.

Mr. GREEN: I think that question is very material, Mr. Chairman. These gas lines will make gas available at many different points and I think the question of Mr. Byrne is quite material.

Mr. CORLETT: I would like to say, honourable members, that we are in this position, and I thought I had indicated it earlier. I might say Mr. Jacomini is an American and I would go so far as to say that at this moment he has not personally gone over this route, but from his experience I think he can tell you that a pipe line could be built over this route. He has, I think, built pipe lines much more difficult than this. The position that this group are in is this, that at the moment we have not even got a charter, therefore we cannot go to too great an expense in having market analyses and so on made. If we get the charter then we will know where we stand, but at the moment we do not. Therefore, I submit to the committee that the strong points are, firstly, that this is a strong responsible group of Canadians who are taking their responsibilities seriously.

Secondly, we have the financial backing of Dillon Read & Co. No matter how good the engineering talent, if you do not get financial backing, you cannot build a pipe line. Dillon Read & Co. has financed as much, if not more than any single financial firm in New York, Chicago, or in the whole United States.

The Hudson Engineering Corporation, I think, as Mr. Jacomini, the witness, can prove to you, knows as much about the gas industry from an engineering point of view as any company in the United States.

But in answering Mr. Byrne's question, I must say that we do not know, and we could not tell you. If we did, it would only be an estimate. Possibly the honourable members might like to hear from Mr. Jacomini what he knows about the gas industry, so that they can assess whether or not he is a first class engineer.

Mr. GREEN: Is this the situation? You people have made no survey whatsoever of the route, and you are simply drawing a red line on the map?

The WITNESS: No sir. Mr. Hurter is one of the petitioners. As I mentioned he is one of the owners of the Stadler-Hurter Company, one of the outstanding Canadian consulting engineering firms today. He has made a preliminary survey of the route, and he knows the area. Mr. Jacomini, the witness, is an American and he could not say, with honesty, that he has been over the line, because he has not.

Mr. MURPHY: I think we are in a strange position, Mr. Chairman. We are being asked to accept testimony from an engineer who knows practically nothing about the requirements in the different areas as was indicated by his answer to the question asked a few minutes ago. They say they have financial men prepared to back this thing; but what are they backing? We do not know. We do not know what they are going to back. Certainly there should be some analysis presented before this committee as to the requirements all along the line.

I should think that any financial firm which was going to support this proposition would certainly have an analysis made in regard to a proposition which undoubtedly will involve millions of dollars. We have not yet been given the figure, but I suppose we will get it. Therefore I think we are entitled to know where they are going to get their gas, where they are going to sell it, and how they are going to sell it. I think that evidence should be presented to this committee. This witness cannot tell us.

The WITNESS: Mr. Chairman, my knowledge of the business is quite extensive. We have been engaged in the gas business for many years, and from our general knowledge I think we can tell approximately what might

be involved in the cost of the line. As to the actual cost of the line, we cannot tell you that until we have actually made a survey of the line in the area, and in the type of country involved.

By Mr. Murphy:

Q. You cannot give us any idea of the cost of the line, let us say, from Pincher Creek to Vancouver?—A. I think it would be in the order, according to our estimates, of \$70 million to \$80 million for that distance.

Q. How many miles is it?—A. According to the route indicated, it would be in the neighbourhood of 1,000 miles.

Q. And what would be the size of the pipe line?—A. We had thought in terms of a 24 inch line at the start. Size of a gas line is a considerable problem in itself. It is something that gas companies are confronted with every day in the year, because the size of the line would be directly tied in with the number, capacity and design of the compressor stations along the line. It is for the purpose of making a survey with respect to those matters that we have been engaged, when this company gets a charter to proceed.

Q. And the estimated cost you said was what?—A. In the neighbourhood of \$70 million to \$80 million, or in that range. I must qualify that statement because we do not know as yet what places in Alberta will have to be tied into to gather gas.

Q. You do not know where you are going to get the gas?—A. We do not know where we are going to get the gas until the Alberta government tells us that the gas will be available. And when they tell us the gas will be available, arrangements can be made with tie-ins to get the gas.

Q. Would your firm make a survey as to the requirements along the line?—A. At that time we would be engaged in helping to do that work.

Q. A survey to see what each of the municipalities, cities or towns would require?—A. We would participate in such a survey.

Q. Have you any idea of how much gas you could dispose of?—A. Not any specific figures; only our general knowledge here.

Q. What figures would you give to the financial firm upon which they might base a reasonable conclusion as to the feasibility of this company being sound?—A. The financial firm on their own has made a study in connection with the matter.

Q. Did they employ an engineering firm to find out what the requirements might be?—A. I do not know, but I know from their personnel that they know these things.

Q. I was going to speak about sulphur. Would you be able to say whether or not this firm would have plants such as were proposed by another company which appeared before this committee, to take off the by-products before transmitting the gas?—A. I think I can answer your question very well. In the transportation of natural gas, constituents in the gas which are not desirable for transmission through the line must be removed. Those constituents are: first, water, which has to be removed, otherwise the line will freeze up; second, there are hydrogen sulphide and carbon dioxide. They must be removed. Then the gas must be compressed to the pressure at which it enters the line and is transmitted through the line.

In all of this work, such as removing sulphur—if the gas comes from an area where sulphur is present in significant quantities—we are specialists.

Q. What is your estimate of the capacity of this pipe line?—A. From my general knowledge of it, I would imagine that it would be in the neighbourhood of 200 million feet a day.

Q. You do not know what the market would require?—A. No, I do not know what the market would be.

Q. How much in the way of by-products would you get out of it, if you transported the quantity which you mentioned?—A. If I knew the places where the gas was to come from, I could tell you, but I do not know which fields would be coming in at that time.

Q. The fields would vary?—A. Yes, very considerably. We at the present time are building over \$20 million worth of plants in the United States of the type you speak of for cleaning up the gas so it may enter the line; and we also own the largest plant in the United States feeding a gas line.

Q. You expect to acquire sufficient gas in any event despite the fact that there is a proposed line going to the east, a very large line?—A. I think that question depends on what the reserves are, and what the Alberta Board decides is available for export.

Q. You have not made any inquiry about it?—A. Only so far as what has been published in the Alberta Board report.

Q. You think there is plenty of gas available?—A. I do not know. The only people qualified to say that are the Alberta Board. I know there are reports on it; and I also know that no major gas development takes place until there is a market for the gas. If there is a market created, then there is drilling. If not, there is no drilling.

Q. Do you know at what price the gas would be sold at any place in competition with other fuels?—A. No. I think that matter would be controlled to a large extent by the Utility Boards in Alberta and British Columbia.

Q. How are you going to dispose of the gas? By selling it to Public Utilities?—A. I do not think I am the one to answer that question. I am on the engineering side of the line.

Mr. MURPHY: That is the trouble, Mr. Chairman, we have not got an officer of the company here.

Mr. CORLETT: Mr. Chairman, I think perhaps we could clear up the point at this time. Mr. Wadsworth has been involved in this matter for some time and he might be able to provide an answer which would clear up any doubts which hon. members might have. Then Mr. Jacomini could resume the stand and give testimony later.

Mr. BYRNE: Mr. Chairman, as we know, there have been other companies making application here. One of them particularly indicated that Trail and Kimberley, two towns engaged in mining and smelting, would be covered by this proposed pipe line and would use approximately the same amount of gas as the greater Vancouver area. Now, is it true that your company has not made a survey to determine the matter? When drawing this proposed line along the southern portion of British Columbia, has your company decided to use that line because it appeared to meet with the general approval of the committee on other occasions? I think there ought to be some indication given.

The DEPUTY VICE-CHAIRMAN: Mr. Corlett?

Mr. CORLETT: In fairness to Mr. Jacomini, I hope to answer that question better and to satisfy Mr. Byrne. No, it is not a fact that we just show a route used by Alberta Natural Gas. Naturally, we have read the evidence taken before this committee by other petitioners. As I remember it, the Alberta Natural Gas Company had four or five lines. This was one more and I think they threw in another one going through the Yellowhead Pass. Mr. Hurter who unfortunately could not be here today has gone over this route and he says from his engineering experience that it is feasible. As a matter of fact, from information which I have and on which I think Mr. Wadsworth could elaborate, the big problem in the pipe line business in the United States is not created by engineering aspects but rather by financial aspects.

A preliminary survey has been made for this route. And it so happens that the Alberta Natural Gas Company has also made a preliminary survey. I do

not know how detailed it was, and I have forgotten what the evidence was. I suppose that because of this barrier, the Rocky Mountains, no matter how many petitioners you might have, they would be limited to a certain number of routes because of the location of the passes through the mountains. But we have made a preliminary survey.

Mr. GOODE: Who made the preliminary survey?

Mr. CORLETT: Mr. Hurter, one of the petitioners. He is the owner of the Stadler-Hurter Company, of which company many hon. members know. The company are big operators in their field in Canada.

Mr. GOODE: Mr. Chairman, if the gentleman whose name has been mentioned has been over the route, why is he not here today? I think it is most necessary to the application. Mr. Byrne asked a question and so did others, and we could not get answers. When would this gentleman be available?

Mr. CORLETT: I would have to consult with my colleagues. It is true that he did not come but our feeling was this: Mr. Hurter or this group of petitioners are really still, you must bear in mind, only working on a preliminary survey, and if I remember correctly the evidence given in other bills, they talked there of only making preliminary surveys.

Mr. GOODE: No, that is not right. They had a man over the route, as I understand it. I am in favour of no particular company, but I do take exception and I do not think it is right that we cannot get answers. All you are telling us is that you have sufficient financing for our information—that the financing is satisfactory, and that you ask for a charter without giving any further information. Is not that exactly what you have done this morning? Is not that so?

Mr. CORLETT: That is perhaps quite a valid interpretation of what I said. We have to and naturally wish to supply all the information that members of this committee want, but we felt that Mr. Hurter, one of the petitioners who has been over the line, would not be able to give information on the engineering aspect of building pipe lines as well as Mr. Jacomini could. Mr. Jacomini's company is into this type of thing in a big way.

Mr. GOODE: Yet Mr. Byrne could not get an answer in regard to the expectation or use of gas in Trail and Kimberley, and we have received information before in this committee that without supplying Trail and Kimberley gas cannot be profitably taken into Vancouver. If I remember rightly, that was the evidence given before the committee last year.

I am only an amateur at this and I know nothing about gas lines, but how can anyone who has not been into Creston, Trail, Kimberley, and through the country around Grand Forks say that it is going to cost \$78 million to build the line. That is information which I think this committee should have. Other companies had to come and tell us that detailed information. I remember we were all asking questions about it and Mr. Green took some hours. They had the information available and gave it to us.

Mr. Byrne suggested that you might be building your application on a transcript made at the expense of some other company. Frankly, I agree with him. I may not be right, but that is what you have told this committee this morning. You have said: We do not think you should have detailed information as regards to route; to our minds it is satisfactorily financed and that is all you should know. That is what you have said, and I am not satisfied with it at all.

Mr. CORLETT: I am sorry that anything I have said has created that impression. That is not what we want. We are limited because of the fact that no company exists at all. As I remember other companies they already had in one form or another, provincial organizations which were in existence. Here, this group has nothing.

Mr. MURPHY: Perhaps Mr. Corlett can include this in his answer— —
The DEPUTY VICE-CHAIRMAN: Mr. Goode is not finished.

By Mr. Goode:

Q. No, I am not finished. May I inquire— — I do not think you can answer but perhaps one of the others can— — what is the cost of gas delivered in any quantity through the Yellowhead route as against that through the Crow's Nest route? What would be the difference in your opinion?—A. I did not get the two locations?

Q. What is a unit of gas—a rather large unit?—A. A unit?

Q. Yes?—A. A thousand cubic feet.

Q. How much would a thousand cubic feet of gas cost delivered at Vancouver through the Crow's Nest route, and how much would it cost through the Yellowhead route? What is the difference in the cost?—A. That of course would depend considerably on studies which have not yet been made by our company.

Q. Is it not fair to say that you do not know?—A. Very definitely I do not know.

Mr. MURPHY: There is one thing I would like to ask the solicitor now. Is it not a fact that after this witness is through you are going to call a finance man and all that he can give us is supposition? He has no facts whatsoever upon which to base a conclusion— — except upon assurances?

Mr. CORLETT: As far as this particular line or route is concerned I imagine that would be so.

Mr. MURPHY: You have not made any survey as to the amount of gas to be consumed in any places along the line and, as Mr. Goode says, you are not in a position to tell us what the gas is going to cost at any place. You cannot tell us either the rate or what the gas is going to cost at different places?

Mr. CORLETT: That is correct, largely because no company exists at the moment.

Mr. MURPHY: All your financial man can do here is give evidence, as to the soundness of this company, which is based on the assumption that they can get the gas and that they can sell the gas, but no survey has been made as to how much they can sell, what they can get, what they have to pay for it, nor what it is going to cost to transport?

Mr. CORLETT: Not with reference to this proposed line.

Mr. MURPHY: And you have not any other witness that can give us that information, because you have not made a survey?

Mr. CORLETT: We have not made a detailed survey, no sir.

Mr. MURPHY: I would certainly suggest, Mr. Chairman, that this charter be not granted.

Mr. APPLEWHAIT: I would like to ask one or two questions.

Mr. FULTON: Well, it is difficult to hear and may we ask that the witnesses speak louder or that the committee members speak a little more softly.

Mr. APPLEWHAIT: Mr. Chairman, could one or other of the witnesses, or both of them now before us, say whether they are familiar in a general way with the plans of the Trans-Canada Pipe Lines Company whose charter was granted earlier this year? I mean you have a rough idea of what they propose to do?

Mr. CORLETT: I do not know whether Mr. Wadsworth would be able to throw any light on that.

Mr. APPLEWHAIT: I will tell you why I want to know, and I could ask several things, but I want to know first whether the sponsors of this company

have investigated the situation in connection with efforts made to take natural gas out of Alberta and distribute it? I want to know whether the sponsors of this company are satisfied that there is ample gas available to supply that part of British Columbia which they can serve from their proposed line if Trans-Canada Pipe Lines, to whom we have given a charter, are successful in operating at the rate which they estimate — 365 million to 500 million cubic feet per day? Are they satisfied of that — taking into consideration the large amount which may go eastward. If they are, I would like figures and facts upon which they base that satisfaction?

Mr. CORLETT: I think I can answer Mr. Applewhaite's question partially and Mr. Wadsworth can supplement what I say.

If honourable members will remember the statement by Senator Campbell at second reading of this bill in the Senate, he said, and it is a fact, that a preliminary survey was being made and is still continuing—although it may have been adjourned for the time being. Consideration was given to the possibility of running a line from Alberta to eastern Canada over an all-Canadian route, but it is not known yet whether gas can be transmitted from Alberta to eastern Canada to compete with American gas coming in from Windsor and Buffalo. The matter is before the Federal Power Commission at Washington, upon the application of the Consumers Gas Company, Toronto, who have formed a provincial company to build a pipe line from Toronto through Hamilton to Buffalo. There is also the Union Gas Company which distributes gas in southwestern Ontario and, although Mr. Murphy may know more about this than I do, I understand that they bring gas in during the summer months and store it in abandoned wells.

Application has been made for an increase in the importations into Canada of American natural gas but, until a decision is made our group will not know its position.

Mr. APPLEWHITE: I was hoping the question would be of assistance and not of embarrassment to the applicants. What I want to get an answer to is this question: is there enough gas in Alberta to fulfill the prospectus of Trans-Canada Pipe Lines, assuming they work at maximum supply, and still supply southern British Columbia?

The DEPUTY VICE-CHAIRMAN: Can you answer that Mr. Corlett?

Mr. CORLETT: No, I cannot.

The DEPUTY VICE-CHAIRMAN: Have you anybody here who can.

Mr. CORLETT: Mr. Wadsworth.

The DEPUTY VICE-CHAIRMAN: We have another witness and, if members would like to hear Mr. Wadsworth we could have the three of them together and ask questions of any one of them.

Mr. MURPHY: That is a good idea.

Mr. Arthur L. Wadsworth, Vice-President, Dillon Read and Co. Inc., New York, called:

The DEPUTY VICE-CHAIRMAN: Would you like to make a statement, Mr. Wadsworth?

The WITNESS: I will make a very brief statement if I may because I think so much of this question goes back to the fundamentals of experience and general knowledge of these things. Our firm, as you know, is one of the old and well established American Investment banking firms. Our primary field perhaps has been in oil and gas since 1935 when we placed the first natural gas bonds

that were ever sold to institutions. That was \$16 million bonds for Northern Natural. Our firm has managed or underwritten over \$1 billion worth of pipe line securities alone and of that \$800 million plus were actually placed by us or we were the manager of the group. For the other \$200 million we participated with other bankers. That is a record of achievement.

In doing that sort of work, which is one of our specialties, we naturally pick up a great deal of general information, the same as each of you gentlemen do in your own business. In my case, for example, I worked through from the very beginning to the end on the financing for the Big Inch and Little Inch pipe line, on its purchase for \$143 million, and on the subsequent organization—taking over the lines and converting them to gas. They are now, just three years later, a \$250 million company.

Now, going from that to the specific question here, I would like just to take a minute to tell a story. Back in 1936 I was working on the financing for the Texas Oil Company, a 60 million dollar bond project. The most outstanding geologist in the United States was our expert, and he was asked by our lawyer whether he had personally inspected the Arabian oil fields, because he had made the statement in his report that there was an empire of oil in Arabia, and he just laughed and said that he could have tracked over every foot of those deserts but that he would not have known anything about the oil underneath. He said that he had inspected the geophysical work and the drilling done and that as a result of that he would stand by his statement that there was an empire of oil there. That was when they had one or two wells in Saudi Arabia and Bahrein was partially developed. I do not mean to say that is the complete answer to the economic situation of the pipe line without detailed studies; you gentlemen are absolutely right; but those detailed studies can be made and will be made by this group prior to the time we have to appear and present our case before the Transportation Board, which, I understand, is the group which will make the final decision. As I understand the situation here, this group is asking for a charter, and they have asked us to serve as their financial advisors and bankers. They have asked only to present the case for a right to apply. We have looked carefully in a general way on this Canadian situation; for example, there is the De Golyer firm, which is on practically a retainer basis, we are one of their largest clients; there is Mr. MacNaughton, a friend of mine, and a partner of De Golyer, who is head of a firm developing reserves, in Canada, and there is Canadian Superior Oil, which we recently financed with Wood Gundy, managing the sale of stock in Canada. Besides that I have talked to a number of engineers. Three years ago a man wanted us to back him on a Canadian gas pipe line, but the concensus of opinion was that he was too far away from the realities of the situation and ought not to spend a lot of money and put in a lot of time on a project which was too far away. We feel now, to try and answer some of these specific questions raised here at one time, that the time has come when Alberta is able to supply the requirements of at least one pipe line going in one direction or the other. That is based on general knowledge, but it is based on discussions with a great many of these engineers who have furnished information for the Alberta Board's report. As to which way it should go, first of all, it is a question for you to decide. We personally believe the economies are such on the market end of the line to the west is much more practical than a line to the east. You get such a large investment coming into the eastern markets that you have to have a large amount of gas sales each day to make an eastern line justifiable. Our own inquiries and we have made these in the eastern part of Canada, is that today those markets are not large enough. We may be wrong, but that is the reason we have advised these people that the eastern route was not desirable. In going west you can take care of all the communities on the way to Vancouver. Frankly, I think you will have to supply some surplus gas to the Seattle and Portland area to make it economic, but there is a

market there which means you will be able to get a pipe line to serve the Canadian cities en route. Therefore, you have the elements of a successful pipe line. We may go through this particular group of towns, or some other group. So long as you do not run us over the top of the mountains, the pipe line is economic, and it is up to the people and the responsible Canadian boards to determine the routes. As I say, you have got a supply of gas in Alberta, and we are convinced it is growing, otherwise we would not have sold \$20 million worth of securities for Canadian Superior Oil. At the present I believe if the Alberta Board wants to make the decision, they could make it tomorrow, and you could contract for the gas to complete the pipe line. If they wanted to look at it from the point of view of 50 years supply for Canada and assume no more gas will be discovered in Alberta then there is not a supply sufficient for export, but the whole trend in Louisiana and Texas was the same in that they did not want to export any gas in the beginning.

By Mr. Byrne:

Q. Mr. Chairman, the reason you have picked the starting point in the vicinity of Pincher Creek is because your company have prepared some of the ground there in that area, and you are making— —A. No, sir. I can answer that question specifically: Pincher Creek, from what I have heard, is one of the largest potential sources of gas for the present, but, obviously, if somebody brings in a large field north of there, or if the development trend is north of there, the pipe line will go north of there to get its gas. We had preliminary discussions about a year ago with people in Texas who have no part in this project, but who have large gas and oil holdings in Alberta, and they feel there is going to be a substantial additional development, but at the present time Pincher Creek is one of the largest potential sources.

Q. But you do favour this route as the most economic route, or is it because it would—what is the particular reason for favouring the, what is known as, Crow's Nest route?—A. I could not answer that question because I am not an engineer, and, as I said, as I understand it, this is a route which is not too expensive to construct and which hits a number of communities. There is no reason I could give you why the line could not be, within reason, routed some other way to take in some of your other communities if you feel there is more of a market that should be served there.

Q. Well, I personally agree with this route, which serves the largest number. —A. That is what we have been advised. I am in the banking business in New York and I do not know any of the details.

The DEPUTY VICE-CHAIRMAN: Is it the intention of the company to use that as a pipe line route at the present time?

The WITNESS: It certainly is, as far as I know.

By Mr. Murphy:

Q. Is it not a fact that you are giving your assurance to this group on a hypothetical basis?—A. Sir, I do not quite know how to answer that. It is hypothetical to the extent that we have not seen detailed figures, but it is not hypothetical to the extent that we know the general situation up there, and we know this particular type of business. In other words, let us assume you were in the shoe business. If you see a good corner in a town having no shoe stores nearby, and you had surveyed that town to a certain extent, you would have a general impression whether there was a market for a shoe store. We do not know much about shoe stores, but we do finance pipe lines.

Q. Yes; you have financed them in the United States; you have never financed them in Canada?—A. We have never financed a pipe line in Canada, but I would like to say, as one of the gentlemen speaking for the other group

mentioned this morning, we financed two of the biggest projects he had worked on as an engineer; the Big Inch pipe line and the Trans-Arabian, which was built to link up the Saudi Arabia fields with the Mediterranean. That was a \$125 million project, and our firm financed that, so we have financed pipe lines outside the country.

Q. You do not know what you are going to have to pay for gas? You have not any fields of your own?—A. We have not, no; neither have most of the companies in the United States. There are very few of them today that own gas reserves of their own. Those that do are trying to get rid of them; they would rather contract gas from others.

Q. What bothers me is how you can base a figure and still make it stick as a sound investment when you do not know—when you come before this committee with such little information?—A. May I try and answer that question?

Q. Yes.—A. As I told you, I worked on the original economic studies for the Big Inch Pipe Line bidding. They were surplus war assets sold on competitive bidding. At that time nobody was selling natural gas east of the Pittsburgh area, and nobody since before the war had contracted for large blocks of gas in Texas because all construction had been stopped during the war. We knew if the gas could be purchased at 7 cents a thousand cubic feet, which was 2 cents more than had ever been paid before, that it could sell for 26 cents in the eastern market per thousand cubic feet and compete on a favourable basis. There was no other gas, except manufactured gas, to compete with, and on that basis a pipe line would earn 7 per cent on its investment, and a pipe line that would earn 7 per cent on its investment could be financed successfully with a combination of bonds and preferred or common stock, or both, and it was on that basis that we went ahead and bid the \$143 million. Now, to be a little more specific, one cent difference in the cost of gas can make an awful difference in the value of the pipe line, but your people in Alberta want to sell gas as they develop it. They would like to get 10 cents, but they would probably take 8, so what you have to do is work backwards, and if the market in Vancouver can pay a certain price for fuels, you work back from there, with the cost of the line and the return on the line, and you get the price you can pay at the other end. We believe gas can be purchased at this end on a basis which will be favourable at the western end of the line.

Q. So that you can compete against other fuels?—A. So that we can compete against other fuels and earn a fair rate of return. After all, since the war there have been three or four of these large pipe lines built in the United States, and the formula for handling that and engineering the job is becoming fairly standardized. The big job is to find a big enough block of gas to justify one of these pipe lines.

Q. What disturbs me is the statement made by one of the witnesses that there would be enough gas developed by Alberta to supply one pipe line either east or west; was that your evidence?—A. I made that statement, but I qualified it: I said we feel if the Alberta Board made a decision this fall to permit the export of gas that our preliminary knowledge of the area indicated enough gas could be contracted for in Pincher Creek and other areas to support the financing of that pipe line.

Q. Just one pipe line?—A. But that is one today, now. Once you build a pipe line and these people begin to get 7 or 8 cents for gas, there is going to be a lot more drilling, and I would be very surprised, from what the geologists say of Alberta, if within a few years there is not plenty of gas for supplying at least two pipe lines. For example, in Pincher Creek, Gulf is the principle owner there, and Gulf told some of our representatives personally that their problem was that a well there cost around \$150,000 and why should they develop 20 wells to develop that field when there was no guarantee of having anybody to sell gas to. It is the chicken and the egg problem, if I may say so.

Q. How do you propose selling the product?—A. You mean the securities or the gas?

Q. The gas.—A. Well, the best way to sell the gas is to establish utility companies and industrial consumers to the extent you can get them.

Q. Establish your own utility corporations?—A. Oh, no sir; you would sell through utilities that would be established there, or are already there.

Q. You would not need to establish the utilities?—A. No, we would not. I have no present part in this company, but normally a pipe line company acts only as a transportation unit. It sells to the utilities, and they sell on a basis where the utilities sell so much for a minimum—a demand charge; that is, to guarantee so much from daily supply. That is fixed, and then they pay so much per M.C.F. on top of that for the quantity actually used.

Q. How much gas would you have to dispose of in order to make this a financially sound proposition?—A. I would guess that with a project of this size—and I am talking without checking—it would take in the order of 200 million cubic feet a day.

Q. You feel there is a market for that in Canada?—A. No sir. I said there would have to be gas sold below the border.

Q. About how much?—A. Well, I do not want to sail under false colours, and I have not made any market surveys, but from talking to people who have, it looks as though over half of the gas would have to go south of the border at the present time. From your standpoint, to get gas on a economic basis to yourselves, you could not do it unless you have a big enough pipe line to sell some below the border.

Q. We will go from there to the construction of the financial end of it: how do you propose financing this company?—A. I want to say first of all that it is very foolish to try to predict exactly how you are going to finance anything six months or two months, let alone a year, away. The financial markets are continually changing. Right now we have a very bad market for senior securities in the United States.

Q. You mean bonds and preferred stock?—A. Bonds and preferred stock, whereas up until a few months ago we had the lowest credit rates we had ever—companies that could finance at $2\frac{3}{4}$ per cent now pay $3\frac{1}{2}$ per cent and companies which paid 4 per cent now pay 5 per cent or more if they can borrow at all. In general, the pattern that we have been able to establish—and I think our firm really established originally—was to get contracts for the sale of your gas, providing the buyer would pay for specified minimum amounts on a take or pay for basis. On that sort of basis we would be able to sell bonds to the extent of 75 or 80 per cent of the total cost. That has become a fairly established pattern. That leaves you somewhere around 25 per cent to be raised by the sale of the combination of preferred stock and common, or, as your Inter Provincial did, with the convertible debentures, and that is a matter of the markets at the time you get ready for the financing. But, in general, 75 per cent of the project—two thirds to 75 per cent should be debt and the balance the debentures or equity money.

Q. Some common stocks?—A. We would certainly assume there would be some common stock. On that I would say we would follow the same pattern as we did in the Canadian Superior Oil; we went to Wood Gundy and they said they would like to organize a Canadian group, and we asked them how much they would take through their Canadian group and we took the balance in the United States.

Q. That is not the company listed—that is Superior Oil?—A. That is an off-shoot of Superior Oil of California. The Superior Oil of California is controlled by the Keck family, and they began acquiring acreage in Canada, and they eventually got tremendous acreage, and it was beginning to require large amounts of development money, so Superior Oil of California put their

Canadian acreage into a new company named Canadian Superior Oil for 51 per cent of the stock and the public put in approximately \$20 million, and got the other 49 per cent.

Q. Is that Superior Oil?—A. That is Superior Oil of Canada.

Q. Listed as "Superior Oil"?—A. "Superior Oil of California" is listed on the Stock Exchange. Canadian Superior Oil is not as yet, but we have no relations with them except as their bankers.

Q.—And in your financing, Mr. Wadsworth, you have not mentioned what you might be selling the common stock at?—How much money do you intend to raise on that?—A. Well, if the pipe line costs \$80 million we will have to raise \$80 million.

Q. And about 80 per cent of that, you say, by bonds and preferred stock?—A. I said two-thirds to three-quarters.

Q. And the balance would be raised by common stock?—A. As I say, it might be common stock, it might be a combination of common and preferred or it might be convertible debentures, convertible into common stock.

Q. It will depend probably on the condition of the market when you are prepared to sell the issue, is that it?—A. That is right. Right now, you can buy good common stocks at somewhere between six and ten times their earnings. On a new proposition like this a man is not likely to take a risk and buy the stock unless the common stock is only four or five times the projected earnings. Your financial arrangements will be set up to sell as much as we can of the various types of securities in such a way as to support the equity money at four or five times the estimated earnings.

Mr. HERRIDGE: Mr. Chairman, I have been detained unfortunately in the House a few moments, that is why I was not here earlier. Is there an engineer here representing the company? I would just like to ask one or two questions? I am very pleased indeed to see this route is projected through the Crowsnest Valley and the Kettle Valley from Pincher Creek to Hope. That pleases many of the honourable members of this committee. Now, we were informed on the occasions of discussions on previous bills that the reason the companies did not consider this all-Canadian route was for two particular reasons, the uncertainty of the cost of construction over that section of this route that lies between Hope and Penticton, the uncertainty arising because of sliding ground. The members of the committee wanting an all-Canadian route indicated that the provincial government has built a road through there and had little difficulty with sliding ground. Would the witness say if his company expects any difficulty on that score?

Mr. JACOMINI: I think I can say that you have already answered the question—if the provincial government has already built a road through there and had no difficulty, that answers the question.

Mr. HERRIDGE: There should be no difficulty then? I see that this route follows along—goes over the hill from Creston and then strikes a point known as Ymir, which is a small village eighteen miles away from the city of Nelson, which has a population of about 7,000. If this pipe line is built and the city of Nelson wishes to be supplied with gas would your company be willing to build a branch eighteen miles along the highway into Nelson?

Mr. JACOMINI: I think they would probably be very happy to do that if the sale of the gas was economic at this point. Yes, they would be very happy to build that line.

The DEPUTY VICE-CHAIRMAN: Any further questions?

Mr. BYRNE: Mr. Chairman, the witnesses have been discussing presumptions based on hypothetical figures. Could we not presume also that the former companies, companies that have obtained charters here, that have considered

four or five routes, that they would be more or less on a hypothetical basis as well? Your company is sticking almost completely to what is the consideration of this committee, and that is as to the financial backing and the soundness of your company, and we should not fear too much the fact that you have not been able to give complete statistical detail studies as to market and route and so on.

The WITNESS: That is what I was trying to say. A doctor requires experience in diagnosing a case, but you could get a college student to sit down and write up a very complete report with a lot of figures in it but without the practical experience that would not be worth very much to you gentlemen or anybody else. What I was trying to say was that our record is one, I submit, of successful ventures. We have not gone into a lot of things that were impracticable or undoable or we would not have this sort of record. We believe that the Board of Transport Commissioners may want the company to alter this route, but if so the basic fundamentals remain, that there is a supply of gas which is developing and we believe is already adequate, and there is a market when supplemented by the American market, so that an economic line can be built and financed. Of course, we will have to do a great deal of analysis of data which in turn has been prepared by detailed engineering studies, but we have felt, as I said before, it is silly, to be frank, to spend a lot of money and a lot of time until you have reasonable chances of success, and yet we do feel that there is a project here to be built. It is up to your Board of Transport Commissioners to decide who is going to build that pipe line, and when we come before that board the company will have done the work and the engineers will have done their work and so we will have detailed studies and so forth on which we can all present a picture that will stand up in competition with these other pipe lines. I would like to say I was out in the northwest last year, I was up to Alaska, too, and I was travelling with a friend of mine who is a competitor and he has been spending most of his time working on one of these pipe line projects. He was telling me about their problems in developing and financing their lines. I might say everybody uses the other fellow's information and as long as you are not getting it in an unfair way it is alright. People are using our information and we are using other people's information. The best brains of the geological profession of the country have been used by the Alberta government and are summarized in the recent report of the Alberta Conservation Board.

Mr. MACDOUGALL: Mr. Chairman, with respect to this very excellent map, I presume that the main line is depicted in red; it goes all the way from Pincher Creek to Vancouver. Would the witness say yes or no to this question: With respect to the line in blue which goes down from Trail to Spokane, if that potential consumption were deleted, would this company be prepared to expend the necessary money to construct this line from Pincher Creek to Vancouver without any potential American market appearing in the picture?

The WITNESS: I said: No sir, we could not. You could do it, but at rates which would be so high that you people would not buy the gas.

Mr. GOODE: There might be one other question to be asked with respect to the companies serving this line. Mr. MacDougall spoke of them. Is it your understanding that the Canadian government would always maintain control of how much gas would go from the main line to Spokane? In this case Vancouver would want to be guaranteed a supply which would not be affected by those two contributory lines running down to Seattle and Spokane. What guarantee is there that Vancouver will get sufficient gas to take care of her market?

The WITNESS: That, it seems to me, is a matter for the Canadian government to control. It would become a limitation on the financing, to some

extent. But it is the same thing with us in the United States. We have our Federal Power Commission. Our Federal Power Commission has complete control of any gas that goes out of the United States.

Mr. GOODE: What would be the engineering reply to that question?

Mr. JACOMINI: I think with respect to the question of the requirements that are applied, it would be dependent, from an engineering point of view, on the size of the line and the amount of gas which is put through it.

Mr. GOODE: How could you control that gas? We have had this question over the months. Is it possible or would it be possible to cut off that line from the main line? Would it be economically possible to do so at any time, having regard to the fact that a time might come when Vancouver would not be getting sufficient gas to take care of her markets?

Mr. JACOMINI: It would be perfectly possible, physically.

By Mr. Fulton:

Q. To clarify the point which Mr. MacDougall referred to, about eliminating the blue line from Trail to Spokane, if it were sound to build a line through to Vancouver, would it eliminate the market from all possibility of serving the American market? I mean: Eliminating the line from Trail to Spokane does not eliminate the possibility of serving the American market, does it?—A. No, sir, it eliminates only that portion.

Q. Then your main market I take it, as far as the northwestern states are concerned, is in the Seattle and Portland area and that can be served quite easily by extending the line from Vancouver?—A. That is correct.

There is one other thing I would like to say in connection with controlling the gas from Vancouver. That can be a contractual matter as well as a regulatory matter. For example, when a United States pipe line sells gas to one of the big utility companies that utility company has a call on the gas and it cannot be cut off. Perhaps U.S. Steel is buying gas for industrial purposes; they pay a slightly lower rate but they can be cut off. You have heard nearly every winter of the mills in Pittsburgh being shut down because the gas is cut off. In that way to a certain extent you could control the situation as between Vancouver and the American market.

Mr. GOODE: If you contracted to deliver so much gas you would have to deliver it?

The WITNESS: Yes.

The DEPUTY VICE-CHAIRMAN: Mr. Green?

By Mr. Green:

Q. Mr. Wadsworth, what method is used in the United States by the federal authorities to make certain that there is not a shortage of American gas in the United States before allowing any to be exported to Canada?—A. Well, sir, as I mentioned here, the Panhandle Eastern Company I believe at Windsor, and the Tennessee Gas Transmission at Buffalo, have both sought export permits to build lines going into the Toronto market and into the Hamilton market. Those permits have not been granted and I am not familiar with the details of what the Federal Power Commission is doing but I understand one of the reasons they have delayed so long and not taken action, or have not acted favourably, is that they take the position that Tennessee Gas and Panhandle Eastern have more than enough to keep themselves at full capacity in taking care of their own market in the United States. The situation is controlled by the Federal Power Commission which would be comparable to your Transport people.

Q. In other words the Federal Power Commission policy is that American needs must be met before there is any gas exported?—A. I cannot say that is a matter of policy but they have not granted any export permits therefor.

Q. There was some evidence given by a witness today about gas being exported to southwestern Ontario only in the summer. What is the reason for that?—A. I would assume, sir, that the reason is that in the wintertime your house heating load is the thing that builds up in all this part of the country. That house heating load is supplied by a utility company that has the firm contracts I was telling you about. They cannot be cut off up to the maximum they contract for, and the other gas is probably being sold on an interruptible basis. A lower price is paid but it has no priority, and therefore during the summer months when there would be more than enough—people are not heating their homes—it would be available for export. In the wintertime when the gas is being used for house heating it is not available for shipment across the border.

Q. Is your firm Dillon, Read and Company involved in any way with any of the other oil companies or pipe line companies in western Canada?—A. No, sir, we are not. We have stood aside. As I say, the only company we have financed is Superior Oil of Canada which is a producing company. In the United States we are financial advisors at the present time for three of the larger companies; United Gas, which is very big, Texas Eastern, and Texas Gas Transmission; and we have done the financing for a great many others from time to time. Right now we are working on three of those which have total financing of around \$300 million.

Q. The reason I asked the question is that if I remember correctly the name of your firm was bandied about here last year by the applicants for some charter, but I cannot remember which charter it was?—A. Sir, I can answer that too, I think. There were some amusing stories which I will not repeat, but Westcoast Transmission Company is backed by a group that has as their bankers Eastman Dillon. Eastman Dillon are the bankers for Sunray Oil which also holds property in western Canada. Sunray Oil is one of the primary backers of Westcoast Transmission Lines. There is frequently confusion between Dillon, Read and Company and Eastman Dillon but there is absolutely no connection between the two.

Q. That would explain it. I know there was a Dillon mixed up here somewhere.

By Mr. MacDougall:

Q. May I ask one more question of the witness. What percentage of the gas going from any portion of Alberta—we will take this area in question here—in order to make the proposition economically feasible in your opinion, sir, what percentage of that product would have to go to the U.S. market?—A. I tried to answer that; I said it would be over half. I want to emphasize that will depend on the detailed studies of what the Canadian market will take, and that depends on the route the Board of Transport Commissioners select.

Q. Is it fair to assume it will be approximately 70 per cent?—A. I would say it was closer to 70 per cent than half.

By Mr. Laing:

Q. May I ask one question: suppose you deliver gas through to Vancouver and make an arrangement with the public utility company there, like the British Columbia Electric, and you build the spur line to Seattle, those are contracts based on a number of years: before you export to the United States you have to go to the Department of Trade and Commerce to get an export permit: let us assume—which I hope would never happen—that after 15 years the gas through the line diminishes: I would assume that you will have to base that on the principle of pro rata to those contracts; is that what is done? Would you say: we have got to keep this gas in Canada and maintain a contract in British Columbia; we will reduce the American contract? I assume that the principle of pro rata deliveries will have to be invoked? I understand that is

what is happening in some of the deliveries in the United States today? What is done in those instances where supply is fading?—A. You are getting away ahead, I am afraid. I do not know how these contracts will have to be worked out in detail. It will be something your responsible government authorities will have a large part in. In the United States the contracts are for stated minimum quantities to those public utility companies for 20 years, and they can cut down the balance over a month's time, or cut back to 75 per cent. They have various provisions like that. Actually if the pipe line company cannot supply gas to any one of those contracting parties there is simply default under that contract. Now, I do not believe that has ever happened. There have been situations due to the overall shortage in the United States after the war, and in the last few years there was not enough gas to go around and our federal power commission stepped in and allocated the gas regardless of the contracts just as they allocate steel in a time like this, and some of the pipe lines which we financed had no control over the distribution of gas; it was allocated by the federal power commission.

Mr. JONES: You mentioned you are going to distribute gas through the ordinary channels, that is the British Columbia Electric. We have at the bottom end of the Okanagan Valley, the town of Osoyoos, and the towns in the Okanagan Valley have a population of 125,000 people. I see this pipe line touches at Osoyoos. Would your company run the pipe line north to Kelowna and Penticton, or would you form a distributing company or would you encourage local residents to form a distributing company to buy your gas in bulk and distribute that to consumers. How would you serve that valley because it is definitely of importance on this route?

The WITNESS: That would be a matter for the company to decide and not the bankers. The practice in the United States has been to limit these pipe line companies to transportation and to selling their products at the city's gate. The practice in the United States has been when natural gas goes into an area, it is a very profitable and worthwhile to form local natural gas distributing companies. Citizens get together, form and finance a company and contract with the pipe line company. For instance, gas is just coming into the New England states and there are a lot of communities there which will be distributing natural gas for the first time. It is like an industry springing up when it gets its raw material.

By Mr. Murphy:

Q. Let us get clear on this gas being transported from one country to another. Is it not a fact that the natural gas we use from the United States today is what they call dump gas—they ship it to us when they do not require it in the United States.—A. So far as I know, sir, that is correct.

Q. You propose financing this particular company on the basis of the applicants and on the basis of the engineering thesis or ideas you have had presented to you. Now, supposing that you get a charter and you then make your survey and you find out that this project is going to cost \$20 million more. Where do we stand?—A. The answer to that is that assuming you can buy the gas for one or two cents less at one end or sell it for one or two cents more at the other end, which I am certain is going to be the case, you can still finance this. For instance, for the Big Inch pipe line in the United States we bid \$143 million, somebody else bid \$130 million. We were right because we could sell the gas at enough to make a return on the investment.

Q. Could you tell the committee on your present financing basis what you would have to buy it at and what you would have to sell it at?—A. No, that depends on the detailed engineering studies.

Q. And if the cost were considerably higher you might not go through with this project.—A. Yes, sir.

Q. And furthermore there is no assurance you will go ahead with the pipe lines if the cost is excessive.—A. That is right.

By Mr. Fulton:

Q. I want to ask a question if there is no objection to it as it is now one o'clock. I have been told by the other witnesses that the company has no objection to our insisting that the main line be built in Canada before entering the United States of America. As a matter of fact there is already a provision in the Act to that effect. Now, questions have been raised here as to what portion and so on will be necessary to go over to the American market to make it economically feasible. I would like to ask Mr. Wadsworth whether from the financing point of view there is any objection to the inclusion of that proviso in the charter which is now in in section 6 (a).—A. Do I understand you to mean the proviso that it be an all-Canadian line?

Q. Yes, the proviso which is in section 6 (a).—A. I think it is a matter of economics, as I said before, the difference in that routing versus dipping into the United States will make a small difference in your capital costs. In other words it will probably be a little bit more expensive, but the carrying charges on the added investment in this pipe line are very small as compared to what you pay for the gas, so it means that the people selling the gas get a fraction of a cent less or the buyers on the other hand pay a fraction of a cent more, but it would not affect the economics very much.

Q. The fact that this proviso is in the charter is not going to make your line more difficult to finance in any way, it will not increase your difficulties?—A. No sir.

The DEPUTY VICE-CHAIRMAN: Can we see if the preamble will carry before we adjourn?

Shall the preamble carry?

Carried.

Shall clause 1 carry?

Carried.

Shall clause 2 carry?

Carried.

Clause 3?

Mr. GREEN: I think there should be a similar change in clause 4 with regard to the changing of the head office.

The DEPUTY VICE-CHAIRMAN: I have a statement here which it is desired to have read into the record. I will read it:

“Canada
Province of Quebec
District of Montreal

In the matter of the Application for Incorporation of Champion
Pipe Line Corporation Limited.

I, Lloyd Rogers Champion, of the City and District of Montreal, in the Province of Quebec, Financier, do hereby declare:—

1. That I am one of the Petitioners for incorporation of Champion Pipe Line Corporation Limited (hereinafter referred to as the ‘Company’) and as such have personal knowledge of the matters hereinafter deposed to.

2. That the capital stock of the Company shall consist of 2,000,000 shares without nominal or par value.
3. That the 2,000,000 shares without nominal or par value of the capital stock of the Company will not be issued for an aggregate consideration in excess of \$20,000,000.
4. That for the purpose of determining the charges payable to the Clerk of the House of Commons on account of the proposed capital stock of the Company, the sum of \$20,000,000 should be fixed as the aggregate consideration for which the 2,000,000 shares without nominal or par value may be issued.

And I make this solemn declaration conscientiously believing it to be true and knowing it is of the same force and effect as if made under oath and by virtue of The Canada Evidence Act.

(Sgd) L. R. CHAMPION.

Declared before me at the City of Montreal, in the Province of Quebec, this 21st day of May, 1951.

(Sgd) C. R. COOKE

A Commissioner of the Superior Court for the District of Montreal."

The DEPUTY VICE-CHAIRMAN: There is a motion. I would ask someone to move it. Could you move this motion?

Mr. APPLEWHITE: Mr. Chairman, I move:

That, for the purpose of levying a charge on the capital stock which will have no par value, the committee recommend that each share be deemed to be worth \$10.

The DEPUTY VICE-CHAIRMAN: You have heard the motion. Are you ready for the question? All those in favour?

Carried.

Section 4?

Mr. GREEN: Mr. Chairman, I think there should be the same changes made as were made in the case of the Independent Pipe Line Company Bill.

The DEPUTY VICE-CHAIRMAN: Would the clerk read the changes?

The CLERK: Mr. Green moves that sub-clause 2 of clause 4 of this bill be amended by inserting after the word "place" in the first line thereof the words "within Canada".

The DEPUTY VICE-CHAIRMAN: Does the amendment carry.

Carried.

Mr. CORLETT: This company would have no objection whatever to that change.

The DEPUTY VICE-CHAIRMAN: Shall the clause carry as amended? Does clause 4 carry as amended?

Carried.

Does clause 5 carry?

Carried.

Does clause 6 carry?

Carried.

Does clause 7 carry?
Carried.

Does clause 8 carry?
Carried.

Does clause 9 carry?
Carried.

Does clause 10 carry?
Carried.

Does clause 11 carry?
Carried.

Shall the title carry?
Carried.

Shall I report the bill as amended?
Carried.

The committee is now adjourned until 3.30 this afternoon.

